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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,431	10/02/2000	Andreas Klug	112740-112	8643

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EXAMINER

MILLS, DONALD L

ART UNIT PAPER NUMBER

2662

DATE MAILED: 11/05/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/647,431

Applicant(s)

KLUG, ANDREAS

Examiner

Donald L Mills

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11 and 20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 11 and 20, the claim specifies *a control signal sequence*, therefore, the term *control signals* lacks proper antecedent basis. For the purpose of this examination, the examiner will interpret *control signals* as *the control signal sequence*.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 11, 12, and 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al (US 5,412,655), hereinafter referred to as Yamada.

Regarding claims 11 and 20, Yamada discloses a system, which comprises:

Generating (Claim 11)/A generator for generating (Claim 20) a control signal sequence with a clock rate corresponding to the overall payload cell rate C_{RN} of the N time-division

Art Unit: 2662

multiplex communication terminals, whereby the control signals represent one of a first and a second status (Referring to Figure 1, cell disassembly control unit 2 controls the buffer memory, inherently comprising a clock rate that is compatible with the TDM data highway 11 and controls the transmission of cells or idle traffic. See column 5, lines 54-59.)

Offering (Claim 11)/A device for offering (Claim 20) a fixed data pattern (Referring to Figure 2, the idle data transmission controller 204 generates idle data. See column 6, line 21.)

Transmitting (Claim 11)/A first transmitter for transmitting (Claim 20) ATM cells coming from the ATM communication layer into an ATM cell waiting list (Referring to Figure 1, transmitted cells from the ATM highway 5 is stored into buffer memory 12. See column 5, lines 12-14.)

Transmitting, on demand, (Claim 11)/A second transmitter for transmitting (Claim 20) an ATM cell from the ATM waiting list to the requesting time-division multiplex communication terminal when a respectively oldest control signal of the control signal sequence represents the first status (Referring to Figure 2, a cell, stored in buffer memory 12, is transmitted to the TDM data highway 11, when the cell disassembly control unit 2 detects a cell. See column 6, lines 22-28,) *and transmitting the fixed data pattern to the requesting time-division multiplex communication terminal when the oldest control signal of the control signal sequence represents the second status* (Referring to Figure 2, idle data is outputted to TDM data highway 11 when the cell disassembly control unit 2 does not detect a cell. See column 6, lines 28-30.)

Deleting (Claim 11)/A device for deleting the oldest control signal of the control signal sequence (Referring to Figure 2, by definition, signals generated by the cell disassembly control unit 2 are automatically deleted after reception.)

Art Unit: 2662

Regarding claim 12, Yamada discloses:

Allocating a control signal that represents the first status to each ATM cell of the ATM waiting list in the control signal sequence (Referring to Figure 2, when the cell disassembly control unit 2 detects a cell stored in buffer memory 12 it is transmitted. See column 6, lines 22-28.)

Carrying out a check, when a new control signal of the control signal sequence is generated in coincidence with the prescribed clock rate to see whether an ATM cell to which no control signal representing the first status is allocated is still present in the ATM waiting list (Referring to Figure 2, carrying out a check is inherently performed when the cell disassembly control unit 2 detects a cell stored in buffer memory 12 before transmission can begin. See column 6, lines 22-28.)

Generating a control signal representing the first status when an ATM cell to which no control signal representing the first status is allocated is still present in the ATM waiting list; and (Referring to Figure 2, when the cell disassembly control unit 2 detects a cell stored in buffer memory 12 it is transmitted. See column 6, lines 22-28.)

Generating a control signal representing the second status when an ATM cell to which no control signal representing the first status is allocated is not present in the ATM waiting list (Referring to Figure 2, when the cell disassembly control unit 2 does not detect a cell idle data is outputted to TDM data highway 11. See column 6, lines 28-30.)

Regarding claims 15, 16, and 17, Yamada discloses *the method further comprising the step of enabling a cell transmission from the ATM communication layer into the ATM waiting list when the plurality of ATM cells present in the waiting list minus the plurality of control*

Art Unit: 2662

signals of the control signal sequence representing the first status is $\leq X$ (Claim 15)/wherein $X \geq 1$ (Claim 16)/wherein $X = 1$ (Claim 17) (Referring to Figure 2, the cell accumulation controller 1 writes the payload data of the cell, each time an ATM cell is received, on the unused bank of the buffer memory 12, which is inherently performed when the control signal is issued because it is the difference between the number of ATM cells present in the buffer minus the control signal, which is always greater than or equal to an arbitrary number including the number one. See column 6, lines 4-6.)

Regarding claim 18, Yamada discloses *wherein the N time-division multiplex terminals are uncorrelated* (Referring to Figure 2, a cell or idle data is transmitted to the TDM data highway 11, which inherently is uncorrelated because there is only one TDM data highway 11. See column 6, lines 22-28.)

Regarding claim 19, Yamada discloses *the method further comprising the step of dividing the ATM cells and the cells containing the fixed data pattern onto the N communication terminals according to a round-robin method* (Referring to Figure 2, a cell or idle data is transmitted to the TDM data highway 11, which by definition acts as the round-robin method since when cell or idle data is serviced at one time. See column 6, lines 22-28.)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2662

6. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US 5,412,655), hereinafter referred to as Yamada.

Regarding claim 13 as stated above in the rejection statement of claim 11, Yamada discloses all the claim limitations of claim 11 (parent claim). Yamada does not disclose *wherein the control signal representing the first status is represented by a logical "1" and the control signal representing the second status is represented by a logical "0"*.

Yamada teaches a multiprocessing system for ATM cells, which comprises transmitting a cell from buffer memory 12 when a cell is detected by cell disassembly control unit 2 and sending idle traffic when the cell disassembly control unit 2 does not detect a cell (See column 6, lines 22-30.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to manipulate the signal generated by the cell disassembly control unit 2 as a logical "1" when a cell is detected and a logical "0" when a cell is not detected. One of ordinary skill in the art would have been motivated to so in order to make a clear distinction between the control signals.

Regarding claim 14 as stated above in the rejection statement of claim 11, Yamada discloses all the claim limitations of claim 11 (parent claim). Yamada does not disclose *wherein the control signal sequence has a length of up to $3 \bullet N$ signals*.

Yamada teaches a multiprocessing system for ATM cells, which comprises transmitting a cell from buffer memory 12 when a cell is detected by cell disassembly control unit 2 and sending idle traffic when the cell disassembly control unit 2 does not detect a cell (See column 6, lines 22-30.)

Art Unit: 2662

It would have been obvious to one of ordinary skill in the art at the time the invention was made to manipulate the variable length of the signal generated by the cell disassembly control unit 2 as a signal with length $3 \bullet N$. One of ordinary skill in the art would have been motivated to do so because increasing the length of the control signal would provide increased error correction.

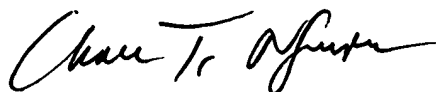
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L Mills whose telephone number is 703-305-7869. The examiner can normally be reached on 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Donald L Mills
DLM
October 31, 2003



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SUPERVISORY PATENT EXAMINER
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